

List of Reference Codes

LLNL WASTE MINIMIZATION ACTIVITY CODES

Recycling Activity

- W010 On-site recycling
- W020 Off-site recycling

Source Reduction Activity

- W110 Segregate types of hazardous waste to make them more amenable to recycling
- W120 Segregate (stopped combining) hazardous waste from non-hazardous (Note: for purposes of hazardous waste reporting, reduces volume of hazardous waste, but does not reduce total waste volume)
- W130 Improve maintenance scheduling, recordkeeping, or procedures
- W140 Changed production schedule to minimize equipment and feedstock changeovers
- W190 Other changes in operating practices (Specify in Comments)

Inventory Control

- W210 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
- W220 Test outdated material, continue to use if still effective
- W230 Eliminate shelf-life requirements for stable materials
- W240 Instituted better labeling procedures
- W250 Instituted clearinghouse to exchange materials that would otherwise be discarded
- W290 Other (Specify in Comments)
- W291 Matched procured quantities with short term needs

Spill and Leak Prevention

- W310 Improved storage or stacking procedures
- W320 Improved procedures for loading, unloading, and transfer operations
- W330 Installed overflow alarms or automatic shut-off valves
- W340 Installed secondary containment
- W350 Installed vapor recovery systems
- W360 Implemented inspection or monitoring programs of potential spill or leak sources
- W390 Other (Specify in Comments)
- W391 Improved equipment seals

Raw Material Modifications

- W410 Increased purity of raw materials
- W420 Substituted raw materials
- W490 Other (Specify in Comments)

Process Modifications

- W510 Instituted closed-loop recycling
- W520 Modified equipment, layout, or piping
- W530 Changed process catalyst
- W540 Instituted better materials, conditions, or controls on operating conditions (flow rate, temperature, pressure, residence time)
- W550 Changed from small volume containers to bulk containers to minimize discarding of empty containers
- W580 Other (Specify in Comments)
- W581 Increased process yield
- W582 Increased equipment reliability

Cleaning and Degreasing

- W590 Modified stripping/cleaning equipment
- W600 Changed to mechanical stripping/cleaning devices (from solvents or other materials)
- W610 Changed to aqueous cleaners (from solvents or other materials)
- W620 Reduced the number of solvents used, to make waste more amenable to recycling
- W630 Modified containment procedures for cleaning units
- W640 Improved draining procedures
- W650 Redesigned parts racks to reduce dragout
- W660 Modified or installed rinse system
- W670 Improved rinse equipment design
- W680 Improved rinse equipment operations
- W710 Other (Specify in Comments)
- W711 Recycled or revised cleaning/rinse solutions

Surface Preparation and Finishing

- W720 Modified spray systems or equipment
- W730 Substituted coating materials used
- W740 Improved application techniques
- W750 Changed from spray to other systems
- W780 Other (Specify in Comments)

Product Modifications

- W810 Changed product specifications
- W820 Modified design or composition
- W830 Modified packaging
- W890 Other (Specify in Comments)

Other Source Reduction Activity

- W990 Specify in Comments

LLNL WASTE SOURCE CODES

Cleaning/Degreasing Operations

- A010 Stripping
- A020 Acid cleaning
- A030 Caustic (Alkali) cleaning
- A040 Flush rinsing
- A050 Dip rinsing
- A060 Spray rinsing
- A070 Vapor degreasing
- A080 Physical scraping and removal
- A090 Clean out process equipment
- A092 Non-routine Clean out process equipment
- A191 Cleaning with Solvents
- A193 Steam Cleaning operation

Surface Preparation/Finishing

- A210 Painting
- A220 Electroplating
- A230 Electroless plating
- A240 Phosphating
- A250 Heat treating
- A260 Pickling
- A270 Etching
- A293 Abrasives blasting operations
- A294 Grinding/Polishing operations

Other Processes

- A310 Product rinsing
- A320 Product filtering
- A330 Product distillation
- A340 Product solvent extraction
- A350 By-product processing
- A360 Spent catalyst removal
- A362 Non-routine Spent catalyst removal
- A370 Spent process liquids removal
- A372 Non-routine Spent process liquids removal
- A380 Tank sludge removal
- A382 Non-routine Tank sludge removal
- A390 Slag removal
- A400 Metal forming
- A410 Plastics forming
- A491 Machining/welding operations
- A492 Building construction/renovation
- A493 Gardening operations (fertilizer/pesticide application)
- A494 Cooling processes (machine/computer, etc.)
- A495 Cooling Tower (regeneration of water deionizers)
- A496 Photo developing/printing/copy machine/x-ray
- A497 Explosives testing
- A498 Microchip processing
- A499 Building maintenance

One-time and Intermittent Processes

- A512 Non-routine Leak collection
- A532 Non-routine Cleanup of spill residues
- A540 Oil changes-maintenance
- A542 Non-routine Oil changes
- A550 Filter/Battery replacement
- A562 Discontinue use of process equipment
- A572 Discarding off-spec material
- A582 Discarding unused, out-of-date products or chemicals
- A591 Freon Recharging
- A592 Demolition/decontamination
- A593 Equipment maintenance operations
- A594 Hospital/medical procedures
- A595 Discarding empty containers
- A596 Emptying retention tanks
- A600 Sludge removal
- A602 Non-routine Sludge removal

Remediation Derived Waste

- A612 Superfund Remedial Action
- A622 Superfund Emergency Response
- A632 RCRA Corrective Action at solid waste management unit
- A642 RCRA closure of hazardous waste management unit
- A652 Underground storage tank cleanup
- A692 Other remediation

Pollution Control or Waste Treatment

- A710 Filtering/screening
- A720 Metals recovery
- A730 Solvents recovery
- A740 Incineration/Thermal treatment
- A750 Wastewater treatment
- A760 Sludge dewatering
- A770 Stabilization
- A780 Air pollution control devices
- A790 Leachate collection
- A792 Asbestos removal/abatement
- A793 Waste analysis (i.e. samples)
- A794 Berm water collection

Miscellaneous Activities

- A910 Clothing and personal protective equipment
- A920 Routine cleanup wastes (e.g., floor sweepings)
- A932 Closure of management unit(s) or equipment other than by remediation
- A940 Laboratory wastes (excluding biomedical) (i.e. spent solutions, lab trash, etc.)
- A942 Non-routine Laboratory wastes (i.e. close-out)
- A943 Biomedical laboratory waste (i.e. spent solutions, lab trash, etc.)
- A990 Other
- A992 Non-routine Other